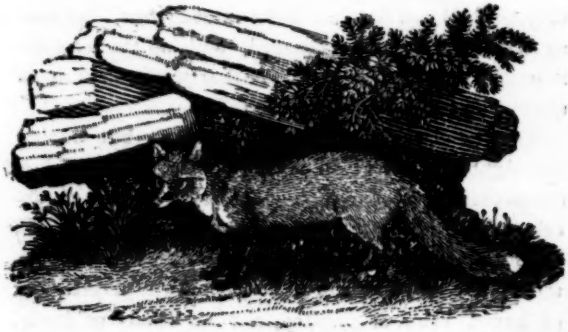
THE BEE,

OR

LITERARY WEEKLY INTELLIGENCER,

FOR

WEDNESDAY, OCTOBER 3. 1792.



THE CUR FOX.

MANY persons have heard of the fox who never saw one; many a lady has had her hen roost robbed by this crafty enemy, who never had the satisfaction of knowing what sort of a creature he was. The representation of that animal above given, being very exact, may serve to satisfy that curiosity. In size, it is nearly the same with that of an ordinary

cur dog. Its colour, a ruſset brown; the hair never lies sleek to the ſkin. Its eyes are remarkably lively and brilliant, and very significant and expreſsive. Its tail is long and buſhy, which it seems greatly to admire, and frequently amuses itself by endeavouring to catch it as it runs round. In cold weather, when it lies down, it folds it about its head.

There are several varieties of foxes in Britain; but that above described is the most common, and approaches nearest the habitations of mankind. It lurks about the out-houses of the farmer, and carries off all the poultry within its reach. It is remarkably playful and familiar when tamed; but, like many wild animals half reclaimed, will, on the least offence, bite those it is most familiar with; and it is always of a thieviſh disposition.

The fox sleeps much during the day; but during the night it is active in search of its prey, which it often obtains by surprising artifices; on which account the cunning of the fox has become proverbial; and numberleſs instances of it are related in all countries. He will eat fleſh of any kind, but prefers that of hares, rabbits, poultry, and all kinds of birds. Those that live near the sea coasts will, for want of other food, eat crabs, ſhrimps, muscles, and other ſhell fiſh. They are also fond of grapes, and do great damage in vineyards to which they can have acceſs.

They are so greedy of honey as boldly to attack the wild bees for it; and frequently rob them of their stores, though much incommoded by the stinging of the bees.

The fox sleeps sound; and, like the dog, lies in a round form. When he is only reposing himself, he stretches out his hind legs, and lies upon his belly. In this position he spies the birds as they alight on the hedges or places near him, and is ready to spring upon such as are within his reach. He rarely lies exposed; but chooses the cover of some brake, where he is pretty secure from being surprised. Crows, magpies, and other birds, which consider the fox as a common enemy, will often give notice of his retreat, by the most clamourous notes; and frequently follow him a considerable way, from tree to tree, repeating their outcries.

Foxes produce but once a year, from three to six young ones at a time. When the female is pregnant, she retires, and seldom goes out of her hole. She comes in season in winter; and young foxes are found in the month of April. If she perceive that her habitation is discovered, she carries them off, one by one, to a more secure retreat. The young are brought forth blind, like puppies. They grow eighteen months, or two years, and live thirteen years.

There is so little difference between the dog and fox, that it is difficult to characterise them distinctly from each other. Yet the dog discovers a great antipathy to the fox, and pursues him with surprising keenness. Experiments have proved, however, that the fox and dog may be brought to breed together; though not without difficulty. Whether the progeny can again produce, or if they be infertile, like mules, seems not to have been yet fully ascertained.

Hunting the fox is one of the most favourite rural diversions among people of high rank in England. For that purpose, many privileged covers are kept in different parts of the country, where foxes are suffered to breed without annoyance, to the great prejudice of the farmers around. Were it not for this circumstance, foxes, as well as wolves, would probably have been long ago extirpated in England.

They shelter themselves, and breed in holes in the earth, or among rocks, where they can find them; but not being capable of digging, themselves, they often drive the badger out from the hole he has dug for himself, and take possession of it, as a safe retreat for themselves, and a secure nest for their young.

ON THE INFLUENCE OF TASTE

ON DOMESTIC AND SOCIAL LIFE.

Continued from p. 120.

"Taste promotes the tranquillity and happiness of families and friends."

I AT first divided my subject, concerning the influence of taste, into the scopes of individual, of domestic, and social, or public happiness. I have in my last paper endeavoured to describe the natural weakness of human nature,—its tendency to the fruition of animal pleasure,—its disappointment in the expected continuance of young delights,—its self abasement, disgust, and chagreen,—together with its various, but abortive attempts, to fill up that infinite vacuity, which is left in the rational soul, when man, rejecting intellectual nourishment, feeds upon garbage, leaving the

ambrosia and nectar of Olympus, for the huſks of the prodigal, and the muddy waters of Lethe.

Here, (good Mr. Editor,) I think I see some of your fair male or female readers, launching the Bee into eternity, by hurling it acroſs the room like a cock-chaffer, with a Heigh ho! what have we gotten here? A bore,—a twaddle,—a cruel lounge of sentiment. I always thought the Bee had too much of dull *ſpaveu*. But now I expect in a week or two to see it stuffed with extracts from Whitaker, against Gibbon, Blair's sermons, lord Hailes's defence of Christianity, or some such sad conundrums.

My dear friend! no such matter, I aſsure you! Do you really think I could expect a faſhionable creature to sit and meditate upon one's end for five minutes, when any thing clever was a doing? No, no; But my dear! it is Sunday, you know, and it rains like a duck day; all the prigs at church! not a soul on Princes's street, and *Scratchoni* the hair dreſser won't be here this age! Come, will you step into my study for a minute or two, and look at Shetwin's print of the death of lord Chatham?

So you have discovered, have you? that your father's park, and ſhrubbery, is not the garden of Eden, and that neither London nor Edinburgh are the new Jerusalem.

I am extremely sorry for you my dear! I remember well being like to hang myself about twenty years ago, when I made the same most notable discovery.

I had received, like you, what is commonly called a capital education, that is, being made a very perfect automaton, to read, write, calculate, ride, dance, fence with the small sword, because pistols you know are now only used, perform the minuet de la cour; because you know country dances, a la mode champetre, are only to be practised in real life,—to play all kinds of music by the book and not by the heart, which you know destroys a performer totally; to admire Handell's church anthems and prayers,—and to laugh at the church and, churchmen! To know the title pages of an amazing number of fashionable books,—to dress negligently among my inferiors,—to be dry, or *non chalant*, in company,—to avoid all brutal expressions of kindness to my relations, and all odious connections with provincials, pedants, shopkeepers, mechanics, and unfashionable old people. To make a genteel little speech at a counry meeting, or move an address in either house of parliament,—to repeat a few agreeable passages from the Latin and English classics, and a few more from Rochefoucault, Mandeville's fable of the bees, Voltaire's philosophical dictionary, the Pucelle d'Orleans, and a few other books of wit and humour,—to use the slang language of statuaries, painters, architects, musicians, and pugilists, with precision and proper effect,—and to play all kinds of fashionable games at cards or dice, without making wry mouths, losing my temper, or rising up from a table where I was overmatched by playing with gentlemen, who were as good as myself, though they might not perhaps sport

it in public, with silk stockings, from the same ſhops I might think it genteeler to deal with,—and last, though not least in importance, I was taught to apply a little *hartſhorn* to a friend or neighbour, when I found him exceedingly uneasy about his domestic happineſs. This I was taught to do with all imaginable grace and addreſs; and to put a final period to his sorrows if he ſhould apply to me for the utmost satisfaction!

These noble attainments was I taught, or rather attempted to be taught; for I must tell you plainly, that I rebelled against my teachers, and would have none of their advice.

On the contrary, I kept my heart soft, my head hard, and my breast steelled, against all this mummery of barrel organ education.

I began with honouring my father and my mother, not that my days might be long upon the land; but because I listened to the voice of nature that cried within me. Loving them, I loved my kindred; loving my kindred, I wiſhed to do good to their friends, and to ſhine in the eyes of my domestic circle, which was composed of their connections. This led me to aspire to the love of virtuous fame, in a more extensive circle, and this attainment I soon found to be impoſsible, without that taste and discernment which enables us to judge intuitively of the insides of things, after having examined their outward forms and aspects.

My mind became a kingdom to me, from whence I travelled into those that were foreign to me, studied their manners, their principles, and their customs, without either partiality or disgust.

I did not attempt to be a wonderful Christian. I was satisfied with such attainments, and with such pursuits, as were suited to my genius and abilities.

Like a good general, I endeavoured always to keep upon strong ground; and, if dangerously attacked, without having the expectation of victory, to make a good and handsome retreat, keeping up a respectable *petite guerre*, without attempting pitched battles, except when absolutely necefsary to my safety and honour. By the constant use and improvement of this faculty of taste and discernment of what is true, excellent, and beautiful, a faculty which, like the etherial fire, is universally diffused, and can be called forth always by the attention of social intercourse, I rendered myself independent and happy. In the pursuits of useful and agreeable knowledge and occupations, I did not bear down, like a mad admiral, upon a whole fleet of pursuits, but singled out objects for which I thought myself able; and breaking thus the line, I carried off my prizes, and discomfited the enemy. I had never any occasion, like the commifsary, to throw myself down upon settees in despair, to exclaim,

"My God what a fatigue it is to be a gentleman!"

No, no! it became my nature, but not my profefsion.

It was not necefsary for me always to sleep, or stretch, or yawn, or lounge, or sit in the silent grave of whist; or fret at ground games, when there were no blood and thundering events to rouse up my mettle for the day.

I enjoyed the pacific flow of my full imagination, and the pleasing rotation of my rational sameneſs. I joined the crowd always, when I had leisure; and took my own road when I saw the finger post that pointed to my duty, and to my chosen pursuit.

These, my dear friend, are the effusions of experience, and not of fancy;—take them, living, as they rise,—use them,—try the experiment, and when we meet again let me know the result. But I hear Scratchoni's bell. Adieu, *au revoir*, *vive la joye*, *et le bon gout*.

Thus, Mr Editor, have I troubled you with a diſsertation consisting only of one ſhort paragraph, which I flatter myself, from its length, at least, will not prove tedious to your readers, and am, with regard, your humble servant, A. B.

DISQUISITIONS ON ANIMAL NUTRITION.

HAVING met with some curious elucidations respecting the natural history of the pangolin, (an account of which singular animal, accompanied with a figure, was inserted in the Bee, vol. x. p. 85,) together with some interesting speculations on the mode of supporting animal life in general, by Adam Burt, esq; inserted in the second volume of Miscellaneous Diſsertations, *&c.* respecting Asia, I beg leave to lay the substance of these before the reader, with some farther observations on the same subject.

Mr Burt, who diſsected the animal with care, had an opportunity of observing several particulars that eluded the notice of Mr Buffon, who had only seen a

dried specimen of it. In particular, he observes, that a general rule established by this celebrated naturalist, *viz.* "that all animals which are covered with scales are oviparous," is clearly contradicted by the pangolin dissected by Mr Burt, which happened to be a female, whose uterus and organs of generation were evidently those of a viviparous animal. Its dugs were two, seated on the breast.

In regard to other particulars, he observes, "that there are on each foot five claws, of which the outer and inner are small when compared with the other three. There are no distinct toes; but each nail is moveable by a joint at its root. It has *no teeth*; and its feet are unable to grasp. The nails are well adapted for digging in the ground; and the animal is so dextrous in eluding its enemies, by concealing itself in holes, and among rocks, that it is extremely difficult to procure one.

"The stomach is cartilaginous; and, analogous to that of the gallinaceous tribe of birds: it was filled with small stones and gravel. The inner part of the stomach was rough to the feel, and formed into folds, the interstices of which were filled with a frothy secretion. The guts were filled with a sandy pulp, in which, however, were interspersed a few small stones. No vestiges of any animal or vegetable food could be traced in the whole *primæ viæ*."

From the habits of this animal, and these particulars respecting the stomach and intestines, our ingenious naturalist hazards a conjecture, which, though, bold at first, sight, appears upon a nearer investigation, to be not entirely destitute of probability. His

conjecture is, That this animal derives at least a part of its food, if not the whole of it from *mineral* substances. This opinion appears bold, rather perhaps because we have not been accustomed to think in this manner, than because it is contradicted by experience. It is indeed true, that the greatest part of animals which come under our more immediate observation, draw their principal nutriment either from the animal or the vegetable kingdom; and because this rule is *general* we have, perhaps too hastily, concluded it is *universal.*

Our acute naturalist observes, "that we have no clear idea of the manner in which vegetables extract their nourishment from the earth; yet the fact being so, it might not be unreasonable to suppose, that some animal may derive nutriment by a process somewhat similar." If we adopt the maxim of Buffon, '*que tout ce qui peut être' est*,' (whatever can be, is,) we shall be led to this conclusion. "When other substances than stones," Mr Burt adds, "shall be discovered in the stomach of this animal, my inference from what I have seen must fall to the ground." Here, however, we think the concession is too liberal. It may happen that there may be animals, which though they can derive nutriment from mineral substances, may likewise be capable of extracting nutriment from animal or vegetable food. All carnivorous animals, we know, may be brought to live on grain. As justly might we then conclude, that if any kind of grain should be found in the stomach of a carnivorous bird, intermingled with animal substances, that this bird derived its whole sustenance from the grain, as that

the pangolin could derive no sustenance from the mineral substances found in its stomach, if a single particle of grain ſhould be discovered there.

Setting aside therefore this conceſsion of our author as unneceſsary, we proceed. "But if", says he, "like other animals with muscular and cartilaginous stomachs, this singular quadruped consumes grain, it must be surprising that no vestige of such food was found present in the whole alimentary canal; nor can it be inferred from the structure of the stomach, that this animal lives on ants or on insects."

He observes farther, from the report of experiments by signior Brugnatelli of Pavia, on the authority of Mr Crell, "that some birds have so great a diſsolvent power in the gastric juice, as to diſsolve in their stomachs flints, rock chrystal, calcareous stones, and ſhells: and nothing, we ſhould think, that is soluble in the stomach of animals, may not be thence absorbed into the circulating system; and nothing can be so absorbed without affecting the whole constitution." But if nature prompts certain animals to seek with eagerneſs, and to swallow with avidity, certain mineral substances, as other creatures ſhow a natural fondneſs for animal or vegetable substances, from which we conclude they derive their nouriſhment, is it not equally natural to suppose that the first set of animals equally derive nutriment from the substances nature prompts them to choose, as the last?

He farther observes, that, though Spallanzani found by experiment, when he attempted to feed fowls entirely upon stones, that they died; yet it can by

no means be inferred from thence, that they derive no nutriment from the stones they naturally pick up. We know that man eats salads by choice, and no one will doubt that he derives nutriment from them; yet I question not, that were men to be fed entirely upon salads, for any length of time, very few could live upon that food alone. Even freſh ſucculent fruits, which are invariably admitted to be highly nutritious to man, when taken with other food, would, if taken alone, prove fatal to *many* of the human ſpecies: but there can be no doubt that the reſult of the experiment would prove fatal to the *whole* human race, ſhould it be conducted in the ſame manner with thoſe of Spallanzani, on chickens. Were a philoſopher, upon diſſecting a human ſtomach, and finding in it ſome raw vegetables, to try if man could be fed on graſs alone, or any other vegetables that came to hand, there can be no doubt but they would all die. How falſe then would his concluſion be, if from this experiment, he inferred that man could derive no nutriment from raw vegetables? How infinitely more erroneous would it be to infer, that no other animal could derive nutriment from raw vegetables of any ſort!

Fowls, moſt aſſuredly, not only ſwallow, but digeſt ſmall ſtones. Manufacturers who uſe dung of poultry, never, I believe, find it mixed with ſtones; but as they require a daily ſupply of ſmall ſtones, theſe muſt of courſe, be digeſted in the ſtomach, and be abſorbed into the lacteals, from whence it is natural to infer, they contribute in one way or other to the health and nutriment of the animal.

From these, and other considerations, our author sees nothing absurd in supposing that the pangolin derives some part, of its nutriment from the mineral kingdom.

I will frankly own that these considerations have had so much weight with me, as to make me believe that we have too hastily adopted the opinion that animals can only derive nouriſhment from animal or vegetable substances; and on taking a superficial glance of animated nature, there are innumerable facts present themselves that seem to give weight to this new adopted opinion; a few of which I ſhall briefly enumerate.

1*st*, Live toads have been frequently found in the heart of the most solid stones, where no vegetable or animal substance could come near them. Here mineral substances alone would seem to have supported life.

2*d*, The *pholades* eats through the most solid rocks. It is true this animal always chooses its habitation in such places as can be moistened, at least at times, with sea water, from which some may suppose it derives its nouriſhment; but can we suppose it would ſhow such a decided fondneſs for the stone itself, if it derived no kind of sustenance from thence?

3*d*, Earth worms are not known to gnaw roots of any plants; and are always found full of a slimy earth. They do indeed draw into their holes straws, and other decayed vegetables, which they poſsibly emploey, in a putrified state, as food; but we have no reason to think that, where these substances are not to be had, the worms would die for want of them.

4th, Sea worms, which are gathered by fiſhermen for bait, are in like manner full of sand: nor do we know that they ever search for vegetable substances of any sort. Indeed these abound most where nothing of that sort could be had.

5th, Gold and silver fiſhes, and several other sorts of fiſhes, can be kept alive for a long time in pure water, in which no kind of animal or vegetable substance can be perceived. On what then do these subsist?

Should it be said they derive their nouriſhment from small insects they extract from the water, it would be only putting back, but not removing the difficulty; for still the question will recur, on what do these small insects feed?

I know these fiſhes will eat bread, if given them, as well as flies, and several other kinds of animal food; but this only tends to ſhow that nature hath endowed them with a power of digesting various kinds of food. Man could live on either fleſh, or grain, or succulent fruits or salads; he may be therefore called a carnivorous, a granivorous, a frugivorous or a herbivorous animal. He might be fed upon any one sort; but he would also take others with avidity, if they came in his way, like the poor fiſhes we treat of.

6th, Is it, however, certain, that man does not derive sustenance from the mineral kingdom, as well as from the animal and vegetable substances he devours? Does the water he drinks, which is so eſsentially neceſsary to his existence, furniſh no part of subsistence to him? it seems unreasonable to suppose it. The following case, among many others, confirms this idea.

About twelve years ago, a woman in Roſsſhire lived several years, without tasting any other kind of food, but pure water alone. The fact was authenticated in the most undeniable manner; and Sir John Lockhart Roſs aſsured me, that he visited her after ſhe had been on that regimen several years, and found her complexion freſh and clear, her breasts plump, and her body far from being in that emaciated state he expected.

7th, I have often thought it was a matter of great difficulty to account for the manner in which fiſhes in the sea were sustained. The number of these is very great; probably much greater, taking into the account the whole depth of it, than the same extent of surface on land; yet few are the vegetables produced in the bottom of the sea; and of these few, a very small portion of them are consumed by the animals which inhabit the ocean. We know, in ſhort, not perhaps a dozen of animals that inhabit the ocean which feed upon vegetables of any sort. On what then do fiſhes live? the answer is ready; on other fiſhes. And true it is, that most kinds of fiſhes devour those that are smaller than themselves. But still the difficulty recurs. If large fiſh devour smaller, what do these smaller ones, down to the very smallest, live upon? They must come at last to derive their nutriment either from vegetable or mineral substances. But I have already said, that the vegetable substances produced in the sea are few; and these few are not consumed by animals, in a great degree. It would seem therefore undeniable, that some of the marine ani-

mals must derive their sustenance from a similar source with that of vegetables.

8th, This doctrine seems to be peculiarly applicable to the herring. Herrings are known to come in shoals, and in so close and compact a body, as sometimes, for miles together, to admit of being lifted out of the water in buckets, nearly full of fish. The fish, when in this situation, are usually fat, and in the highest state of perfection; but where those little fishes find food in such abundance as to keep them in such high health, if they do not, like the stalks of corn, draw sustenance from the element in which they live, it is impossible to conceive. They do not devour other fishes, as is common among the inhabitants of the water; for all fishermen agree in saying that nothing is ever found in the stomach of a *healthy* herring, except a small quantity of slimy matter, more resembling mineral than animal substances. This then seems to be one clear evidence of fish deriving their food entirely from water, as plants do on shore. Myriads of other sorts of fish, of smaller size, may probably derive their food from the same source, which, in their turn, like vegetables, furnish subsistence to animals of a larger size.

From all these considerations, I think there is reason to believe, that there may be some animals, which, like vegetables, derive the whole of their subsistence from the mineral kindom: that the greatest part of them draw the principal part of their subsistence from the vegetable and animal kingdoms; but that there are, perhaps, none which do not derive

a part of their sustenance from the mineral kingdom.

Experiments, however, are here wanting to develope facts so fully as to remove all kind of doubt on this subject.

ON SILK WORMS.

LETTER FROM MISS HENRIETTA RHODES.

SIR, *To the Editor of the Bee.*

YOUR mind seems to poſsefs such a degree of liberality, as well as energy, that I make little doubt but that you have ascribed my silence to its right cause, and will readily extend that pardon to me, which I must believe I deserved before I dared solicit it. To write a letter to you, without having any thing material to communicate, would have been an infringement upon that time, which is so valuable to yourself and others; I, therefore, determined to wait until I received an account of the eventual succeſs of a further experiment, which I had intreated a friend to make upon the lettuce, as food for the silk worm. As for myself, the removal to my new habitation occupied so much of my time and attention, that I was obliged to abandon the design of rearing any this summer. The friend I speak of is miſs Croft of York, who very obligingly kept a few silk worms *entirely* upon lettuce leaves. She aſsured me they were equally as strong and healthy as any ſhe had seen; and that, when, by way of trial, ſhe has dropped a mulberry leaf among the lettuces, they

tasted of the former, but soon returned to their usual food. The silk collected from these, she sent to the Adelphi society in London.

I must now tell you, that she fitted up a small room *with a stove, in which she constantly kept fire.* I am sorry to add the disappointment which attended her manufactory, because her persevering ingenuity merited the highest success; but I imagine it arose from the extraordinary weather we have had; for the rain has been so incessant that we have numbered but few dry days this summer. She had so many silk worms that she found it impossible to devise means to dry the mulberry leaves *thoroughly*, before they were given to them; and in consequence of their living perpetually upon damp food, they had an epidemic sickness, and *many* thousands of them died. I account for her loss in this way, because I have always understood that a wet summer in Italy is productive of exactly the same effects. It could not be owing to cold, because her room was kept properly heated. What general Mordaunt has done with his manufactory, I have not yet heard; but I must be a petitioner to him soon for eggs; and if I gain any information from him, which I think you will like to know, I will immediately acquaint you with it.

You have treated the subject with so much judgement, that I am more than ever convinced of its practicability; but I must differ from you in the mode of constructing your *hot house*, from which *light*, I should think, ought not to be excluded. Ought we not to study the situation in which that creature is placed

by providence, whose culture we are solicitous about? The silk worm seeks no ſhelter, and is a native of that climate where there is, in fact, hardly any night. If I am mistaken in this idea, I have always been so strongly prejudiced by it, that I have ever fancied those silk worms grew leſs rapidly that were farthest removed from the windows, and have therefore constantly kept moving the pans. I rather think, too, that the silk worm *owns no night*; for I never could perceive that it slept in its worm state, unleſs that inertneſs which is discoverable when it parts with its ſkin, be called sleep. Did you ever remark the number of eyes the silk worm has? There appears to me to be many *clusters* of them. Perhaps they may have been given it to enable it to endure the *perpetual* day, which may be neceſsary to the completion of its labour! If I could choose a situation for them, it ſhould certainly be a southerly one.

Your idea of a moveable canvas frame, to be placed over the lettuce beds, is excellent, and I ſhall adopt it next year; the lettuces are, however, even in a dry season, full of moisture, especially those that have cabbaged, which are the sweetest and best.

If ever you receive any eggs from the large worm which Sir William Jones has discovered, I ſhall greatly thank you for a few of them; and certainly those might be sent to us at any time; for surely it would not be difficult to find a person on board of a ſhip who would take care of *a dozen*; and as many lettuces, planted in a little wooden box, might be kept growing against the time of their hatching.

You who have perhaps known the difficulty of these things, will no doubt smile at the ease with which I have settled it, and patiently wait for the more sure, though slower method, which your ingenious relation has adopted * and to which I give my full admiration, and fervent wishes for success.

The year before last, I had a *black* silk worm sent me from South Carolina, which my friends wrote me word was of a new and much more hardy sort. They grew to an uncommonly fine size, and the cocoons were larger than any I ever had; but when I came to wind them, I found the texture of the silk so fine, and that it was fixed so firmly together by the gluten, that it was utterly impossible to reel off the thread. I hope these are not the sort that Sir William Jones speaks of; for if so, they must be *carded* before they can be manufactured. I hope my frank will convey a few of them to you, and then you will see the impracticability of extricating the silk †. Whenever you can spare a few moments I shall feel highly gratified in the pleasure of hearing from you: and I remain, Sir, your much obliged and very sincere friend,

Bridgnorth, Sept. 12. 1792. } HENRIETTA RHODES.

OBSERVATIONS SUGGESTED BY THE ABOVE.

THE public are much obliged to miss Rhodes for the many useful hints she has communicated on this very interesting subject. The foregoing letter seems

* I have not the honour to number this gentleman among my *relations*, though we were schoolfellows, and intimate *friends* from our earliest infancy. *Edit.*

† I have *many hundreds* of these now by me, which I can put to no use.

fully to prove the practicability of nouriſhing silk worms *entirely* upon lettuce, if they be kept in a warm enough temperature of the air, while on that food; indeed it appears that these worms not only lived upon lettuce, but even preferred it to mulberry leaves.

This fact being eſtabliſhed, it next will be neceſsary to aſcertain which kinds of lettuce answer the purpose best. There are about thirty kinds usually sold in the seed ſhops, which differ very much from each other. The tenderest appears to me to be that called *Spaniſh montree*, and next to that the *ice*, or *coſs* lettuce when cabbaged. This last would probably resist rain the best. If any person wiſhes to make a comparative trial of all the kinds, at the proper season of the year, I ſhall endeavour to procure the seeds for them, if they have no other opportunity of obtaining them.

As we now see that the silk worm eats lettuce, and thrives upon it in proper circumstances, it is by no means impoſsible but other kinds of food may be found which will answer the same purpose. I recommend the chicorium as a proper plant for trial. The *chicorium intybus* is, like lettuce, a lactescent plant; the common endive is also of the same claſs.

There is nothing unusual in the circumstance of a certain degree of heat being required to make animals thrive, when kept upon a particular kind of food, that could be dispensed with if they were fed on another sort. Farmers now begin to learn, from experience, that bullocks fed upon turnips, if kept

in a cold place, are apt to be so lax in the belly as not to fatten quickly. If they be kept warm, this inconvenience is not felt; the animal is at all times in a more costive state, and comes on in fattening much more rapidly. This is a branch of rural economy not so generally understood as it ought to be; and mifs Rhodes has great merit in having suggested the idea that the health of the silk worms may be affected by the same circumstances.

As to the article light; it is very poſsible I may be mistaken in that respect, having formed my opinion merely from the report of others. When I said that windows might be saved in houses to be made for silk worms, it was my intention however only to suggest that such large windows as are required in stoves for plants, are by no means neceſsary; so that the great expence of glaſs might be saved. Whether this lady's opinion, that light is of great utility to the silk worms, or the opinion of Mr Wright of Paisley, with several others, that they thrive better in the dark, be the best founded, I pretend not to say; but, as there is a doubt on this subject, it would seem that if the worm be affected at all by this circumstance, it can be but in a slight degree, so that it cannot be a matter of very great importance. It is proper however it ſhould be adverted to by experimenters.

However this may be, there seems to be no reason to hesitate in agreeing with mifs R. in approving a south exposure, where that can be commanded; not only because that is the warmest, and therefore will save most fuel; but also because the heat thus produced is leſs liable to generate noxious vapours, than

that by a stove. I ſhould think therefore that a south exposure, with a few glazed windows, and a considerable number of windows closed with ſhutters, that could be opened during the day time, when the sun ſhone bright, and the weather was in other respects favourable, would be the most eligible.

Every person who has had the management of silk worms on a large scale, complains of the noxious vapour that is generated by them, unleſs they be kept very clean, and the house properly ventilated. Dr Anderson in Madras has found this kind of ventilation so neceſsary for the health of the animal, especially in damp weather, that he has contrived a kind of cane matting for admitting the air freely; which has there answered to admiration. It is surprising however that in Italy, and other warm climates in Europe, where the silk worm has been so long reared, so few contrivances ſhould have been adopted for obviating this inconvenience; for it seems to be an undeniable fact, that the silk worm itself dies in great numbers, in every case where this article of cleanlineſs is neglected.

By some late experiments made by *M. Faujas de St Fond*, and recorded in his history of Languedoc, it appears that the silk worm is much hurt by this foul air. From the experiments of Mr Ingenhouz we also know that all decaying leaves produce mephitic air in great abundance; and as silk worms are constantly fed upon leaves in this state, it must neceſsarily abound very much in the places where they are kept, if proper means are not taken to remove it. As this mephitic vapour is more weighty than com-

mon air; and as the silk worm is in Italy always kept upon solid tables or ſhelves, which will prevent it from ſinking below them, it follows, that the worms themſelves, unleſs when the houſe is freely ventilated, muſt be always kept in the mephitic region; and if they are not ſuffocated by it directly, like the dogs which are thus poiſoned in the grotto *del Cane* in Italy, they may be ſubjected to various diſorders that prove hurtful. This ſeems to be indeed one of the unobſerved cauſes of thoſe unaccountable mortalities that ſometimes deſtroy the beſt founded hopes of the ſilk rearer.

If this ſhould be the caſe we ſhall probably be able to obviate it by adopting a cleanlier mode of management than is there practiſed. Dr Anderſon of Madras has thrown out ſome hints that will greatly facilitate this buſineſs.

One of the moſt difficult branches of the management of the ſilk worm hitherto is the cleaning without bruiſing them. To avoid this inconvenience, the peaſants in France and Italy frequently allow the whole litter to remain without ever cleaning them, which is the cauſe of that unwholeſome ſtench, that has been ſo often remarked by thoſe who viſit the places for rearing ſilk worms in theſe countries. This difficulty, he finds, may be effectually removed by providing a net; or what would be ſtill better, a wire bottomed frame, wrought into large meſhes like a riddle. Have that made of a ſize exactly ſufficient to cover the wooden box in which the worms are kept. When you mean to ſhift them, ſpread freſh leaves into the wire baſket; and let it down gently over the worms

till it comes within their reach. They no sooner perceive the fresh food than they abandon the rubbish below, and creep through the meshes, so as to fix themselves upon the leaves; then by gently raising the fresh basket, and drawing out the board below, (which ought to be made to slip out, like the slip bottom of a bird's cage,) you get off all the excrements and decayed leaves, without incommoding the worms in the smallest degree; and along with the litter you will draw off an inch or two in depth of the foulest mephitic vapours. To get entirely rid of these, the board, when thus taken out, should be carried without doors, and there cleaned; and the slip board immediately replaced to receive all the excrements and offals. After it is replaced, the wire frame that had been elevated a little, may be allowed to descend to a convenient distance above the board, without touching it. Thus will there be left a vacant space for the mephitic air to fall below the worms, so as to allow them to inhabit a wholesome region of the atmosphere.

When a fresh supply of food is to be given, before cleaning, the wire frame ought to be let down as close to the board as can be safely done, and another wire bottomed frame put over it, with fresh leaves, as before described. When the worms have abandoned that in their turn, let the slip board, together with the lower wire frame, be drawn out and removed; and so on as often as necessary. To admit of this alternate change, every table, consisting of one slip board, ought to have two sets of wire-bottomed frames of the same size; the slip board to be always put into its place immediately after it is cleaned, and the wire

frames reserved to be afterwards placed over the other.

By this mode of management it is probable that the worms would be saved from the diseases engendered by the mephitic air; and the numerous deaths that are the consequence of it avoided.

But still farther to insure this salutary effect, another measure, recommended by some philosophers, might be conjoined with it. Every one now knows that quicklime absorbs fixed air with great rapidity. From this known property of quicklime *Mr Blancard*, a gentleman in France, by way of experiment, went even so far as to strew quicklime upon the worms themselves *. This harsh process, he found not only did not kill the worms, but they continued in health, and more vigorous than before, and yielded larger cocoons than others which had not been so treated. Instead of this mode of applying quicklime, however, I should advise rather to strew a thin stratum of fresh slaked quicklime upon the slip board, each time it was cleaned, immediately before it was put into its place. This would absorb the mephitic gas as it was generated, and descended upon the surface of the quicklime. Thus would the worms be kept continually in an atmosphere of pure air †. Were the walls of the apartment to be frequently

* *Memoires par la societé royale d'agriculture, de Paris; trimestre de printems*, 1789.

† To put this question beyond a doubt, Mr Blancard made the following comparative experiments, which were several times repeated.

"I procured," says he, "four glass jars, nine inches high, and five in diameter, closing the mouth with cork stoppers. After which I placed in each of them, in their second life, (so I translate *mue*, which means the stage between the different sicknesses,) twelve silk worms, which were fed four times a-day; and which I confined in this kind of prison all

waſhed with quicklime and water, it would tend much to promote cleanlineſs at a small expence, and augment the healthineſs of the worms, as well as that of the persons who attend them.

The circumstance of the silk worm never sleeping during the night, is a new particular respecting the natural history of this animal, the notice of which we owe to miſs Rhodes, and which I suppose is perfectly well founded. From this very circumstance, however, it would seem that nature had intended that light or darkneſs ſhould make little difference to this singular animal. My fair correspondent has, I ſhould suppose, committed a small mistake when ſhe supposes the silk worm is a native of polar regions, where only, there is no night at one season of the year; for though some parts of China, which seems on all hands to be allowed to be the native place of the silk worm, approach to the polar circle, yet, as the greatest part of that country extends towards the tropical regions, where the day and night are nearly of an equal length, we may rather believe it was there, where the mulberry thrives best, that the silk worm was first produced. But this is a matter merely speculative; for we know that nature may

their life, without taking away either their dead companions, or their ordure or litter. I sprinkled with chalk the worms of only two of these jars, and kept the two others to compare with them.

"In those without lime, I never obtained neither more nor leſs than three small and imperfect cocoons, *(chiques ou bouffard,)* and in the two that were sprinkled with lime, I had very often twelve, and never leſs than nine fine full sized firm cocoons."

This experiment affords the most satisfactory proof of the utility of this proceſs. From a number of trials he found, that even when the worms were covered with a *very large* proportion of lime, they never were in any way incommoded by it.

be in many cases helped by art, and even in some cases improved by adopting practices directly contrary to it. If bees were left without hives, which nature provides for them only in a very imperfect manner, the whole race of them in Europe would quickly be exterminated; and though cattle were doubtless intended by nature to run abroad in the open air, and calves to enjoy the benefit of light; yet it is well known that neither of them fatten so well in these circumstances, as if they be confined in total darkness, and there fed abundantly.

The mortality among the worms, during this wet season, is exactly what might have been expected. Had the lettuce, however, been kept under a moveable cover from rain for a day or two before using, especially if open to the sun at the same time, which, in a proper exposure, may be in some measure effected, this evil would have been obviated. Since the receipt of miss Rhodes's letter, I have been favoured with the following communication from another lady, who is exceedingly accurate in her observations, and who is, from motives of philanthropy, extremely anxious to forward this undertaking. It tends to show that by great attention it might be possible, in some cases, to obtain even fresh dry mulberry leaves during a rainy season, were the superintendants of silk works extremely attentive; though on a large scale, where many persons are employed, this would be a matter of considerable difficulty.

"Miss ——— had got a dozen mulberry plants last year, but not being sufficiently advanced to be of much use, she sent to ——— for her general

supply. To save trouble, and for experiment, ſhe had ſhoots brought her, 8, 10, or 12 inches long; the leaves on the under part were ſtripped off, and the ends of the ſhoots put into water—the water renewed daily. By this means the leaves on the upper parts of the ſhoots were kept in perfect good order, and though ſufficiently, or indeed perfectly freſh, could never be wet. The few worms ſhe had, were ſupplied twice a day with these leaves,—ſome of them attained the ſize of 3¼ inches, others 3 inches, none below 2½ inches. One had 420 eggs, another above 300, and none below 270; which ſhows the leaves were in good condition.

" The worm arrived at as large a ſize as Mr Andrew Wright's at Paiſley, from whom the eggs came; and the average number expected from each female, that gentlemen writes, is, 250.

" Mr Millar writes in his dictionary, or elſewhere, that it hurts the mulberry leſs to take off the ſhoots altogether, than to ſtrip the ſhoots of the leaves."

There can be no doubt but by this practice, if a baſon were provided, with a proper apparatus for receiving the ſhoots, and expoſed to the ſun or wind, under a roof, it might be poſſible to find dry leaves even during rainy weather, though at a conſiderable expence, where the quantity of worms is great. Perhaps the beſt way to have very fine leaves, and healthy plants of mulberries, is to have them cut cloſe to the ground every winter, as we at preſent do with oziers for baſkets.

I am much obliged to miſs Rhodes for the cocoons of the black worm ſhe was ſo obliging as to ſend.

They are very large and beautiful. I ſhould by no means deſpair of converting theſe to uſe, though the firſt experiments were not ſucceſsful. From Dr Anderſon's trials it appears, that, from accidental circumſtances, the ſilk will be ſometimes ſo weak as not to admit of being reeled off without the greateſt difficulty; though, from the ſame ſpecies of worms, the ſilk is, in other circumſtances, as ſtrong as could be wiſhed. It may alſo happen that the ſame ſolvent which is ſufficient to diſſolve the gluten of the ſilk produced by one kind of worm, will not be ſufficient to act upon that of another. On this head a good deal of elucidation is neceſsary, though this paper is too long to enter upon it at preſent.

Though I fear it will not be ſuch an eaſy matter to get ſailors to attend to ſilk worms on a ſea voyage, as miſs Rhodes ſeems to apprehend, no endeavours on my part ſhall be wanting. Sir William Jones writes to me, that though he has the greateſt poſsible deſire to promote enterprises of this ſort; yet he is ſo much engaged in the active functions of his office, that he can ſpare much leſs time to ſuch economical purſuits than he could wiſh; and the little time he can ſpare is ſo totally devoted to his literary Aſiatic researches, that he cannot flatter himſelf with the hope of being able to afford me all the aſsiſtance he could wiſh: but he has no doubt his friends, who are leſs taken up, will do it with alacrity. From Dr Anderſon's exertions, which are entirely in the line of economics, every thing poſsible may be expected. If ever the worms can be brought hither by being alive for ſome part of the voyage, it muſt be, I ſhould

imagine, by the attention of some lady on her paſſage home, who might find it an agreeable kind of amuſement to look after a few. Such a lady might thus, juſtly, acquire celebrity in future, by giving her name to that breed of ſilk worms, which owed their exiſtence in Europe to her patriotic attention.

I beg leave to return my warmeſt acknowledgements to miſs Rhodes for this intereſting communication; and the obliging terms in which it is conveyed. It will give me ſingular pleaſure if I can be in any means the inſtrument of diſſeminating the uſeful information, that her talent for accurate inveſtigation has enabled her to give on this branch of natural hiſtory. J. A.

ANECDOTE.

A WOMAN went to find a monk, and ſaid to him that ſhe had ſtolen a packet which charged her conſcience. *You muſt reſtore it*, anſwered the monk. But, father, I am not ſuſpected, and if I reſtore it, I am diſhonoured. Well, anſwered the monk, bring the theft to me; I myſelf will make the reſtitution. The woman liked the expedient wonderfully, and in a ſhort while after ſhe put into the hands of the monk a baſket, well wrapped in linen with an addreſs on a card. The monk took the baſket, and the woman retired with precipitation. The monk carried the deposit in triumph to the convent; and ſays to his brothers on entering, *Here is my work*. At the ſame time they heard the cries of an infant. It was indeed a new born child wrapped up in a baſket, which the good woman had confided to the monk, as a packet which charged her conſcience.

SONNET.

For the Bee.

O SAY Maria! why is gentle love
A ſtranger to thy mind?
Which pity and eſteem can move,
Which can be juſt and kind.

Is it becauſe you fear to ſhare
The ills that love moleſt?
The zealous doubt, and tender care,
That racks my am'rous breaſt?

Alas! by ſome degree of woe,
We ev'ry bliſs muſt gain;
That heart can ne'er a tranſport know,
That never felt a pain. ENOS.

FOR THE NONSENSICAL CLUB.

For the Bee.

ALL whimſical people come hither,
And chooſe a nonſenſical ſtrain;
For who'd be a wit in hot weather,
T' endanger the loſs of his brain.

'Tis nonſenſe we ſing, and we deal in,
And gen'rouſly deal it about;
And if common ſenſe chance ſhould ſteal in,
We kick the preciſe raſcal out.

Whereof, forasmuch, notwithſtanding,
Moreover, to wit, further more;
Sure never were words ſo commanding,
So ſweetly adapted before.

Thus free from reſtraint, in we rattle,
Inſlav'd by no precepts or rules,
Whilſt thoſe who in form prittle prattle,
Are nothing but ſenſible fools.

Should nonſenſe from human kind ſever,
What numbers muſt ſtraight away run,
The beau pick his teeth muſt for ever,
The chatt'ring coquette be undone.

The bards would have little to write on,
The lawyers have little to say;
The critics would nought have to bite on,
The Non Cons not know how to pray.

Besides, for a plague wit is sent t'ye,
Its owners for ever are poor;
Whilst nonsense is vested with plenty,
Whereof you may see now therefore.

GLEANINGS OF ANCIENT POETRY.

AGAINST FOREIGN LUXURY.

BY W. BROWN.

And now ye Britiſh swaines, (whose harmleſs sheepe
Than all the world's beside I joy to keepe,)
Which spread on every plaine, and hilly would,
Fleeces no leſse esteem'd than that of gold,
For whose exchange one Indy jems of price,
The other gives you of her choicest spice,
And well she may; but we, unwise, the while,
Leſsen the glory of our fruitful isle,
Making those nations think we fooliſh are,
For baser drugs to vent our richer ware,
Which (save the bringer!) never profit man,
Except the sexten and physitian.
And whether change of clymes, or what it be,
That proves our marainers mortalitie,
Such expert men are spent for such bad fares
As might have made us lords of what is theirs.
Stay, stay at home, ye nobler spirits, and prise
Your lives more high then such base trumperies;
Forbeare to fetch; and they'le goe neere to sue,
And at your owne dores offer them to you!
Or have their woods and plaines so overgrowne
With poysnous weeds, roots, gums, and seeds unknowne;
That they would hire such weeders as you be
To free their land from such fertilitie.
Their spices hot, their nature best indures,
But 'twill impayre and much distemper yours.
What our owne soyle affords befits us best;
And long and long, for ever may we rest
Needleſse of help! and may this isle alone
Furniſh all other lands, and this land none!

BRITISH PASTORALS.

NOTICES OF IMPROVEMENTS NOW GOING ON IN INDIA.

Continued from p. 75.

THE following communications respect chiefly the bread fruit tree.

From Dr James Anderson to Richard Molesworth, esq.

DEAR SIR,

I AM favoured with your letter of the 2d of August last, and am sorry you have been disappointed in the teak and cinnamon trees which I sent you last year.

An alligator pear tree, however, having been sent me by colonel Kydd of Bengal, in a box of a new construction, in which I suffered it to remain three months in the ſhade before it was set out in the open ground, where it still continues healthy; I have directed two such boxes to be made, in which two teak and two cinnamon trees ſhall be planted; and as captain Gerrard has obligingly promised to take particular care of them, I have no doubt you will receive them both safe on the arrival of the Deptford.

If they are sent to the West Indies, they will soon yield seeds; my cinnamon and bread fruit tree, are already in flower, and the teak gives ripe seeds in eight or ten years.

You will see by my correspondence last year, that we have constructed reels here, which answer very well, as the ſkaines made on them are afterwards placed by the silk weaver on a reel made of five slender pieces of bamboo, with a thread stretched from the eight extremities of four of the pieces, in the manner of the braces of a drum, and serve as the flies of this simple reel; the fifth piece of bamboo being the pivot or center.

From this reel he winds the silk on bobbins with the utmost facility, and no silk can poſsibly work more freely; but when your model arrives, I ſhall pay every attention in my power to adopt the whole or any part of its construction, to the improvement of this buſineſs, as it

is of much consequence to introduce the best mode in a country where the people are much influenced by custom.

The attention you have paid to my request in the promise of a reel, induces me to hope that this country, having the thermometer always between seventy and an hundred degrees, may rival the greatest establiſhments in the culture of silk; in Bengal, I believe the heat is sometimes greater, and in China much leſs. I am, *&c.*

Fort St George, Jan. 19. 1792.

From Nicol Mein, esq. to Dr James Anderson.

Dear Sir,

Mr Andrews and I have this instant returned from a trip to Allitory, a village about four miles distant from this, where there is a garden belonging to the nabob, in which we have found eight or ten bread fruit trees, two of which are very stately, and have fruit upon them, which is about the size of my clenched fist, and externally has the appearance of a young jack.

The fruit grows from near the top of the branch, and comes out of a ſheath.

The branch, on being broken, exudes a viscid milky juice.

The leaf resembles a good deal a fig leaf; but is much longer and more sinuated.

By this tappall, I send you two of the leaves enclosed in a ſheet of paper.

I have sent for a Mootchy, to make a drawing of a branch from the tree with the fruit upon it. From its appearance I imagine it may be propagated by cuttings, in the same manner, and as easily as the fig.

Mr Andrews says he was informed that the trees were brought from the Travancore country: five or six of the trees have been much mutilated, and their branches cut away.

It exactly corresponds, in appearance, with the description and figure in Cook's voyage, where he found it at Otaheite or king George III. island. I have brought with me some young ſhoots, which I have ordered to be planted in my garden. The leaves I have sent you, are not above

half the length that some on the tree are; as the latter could not be so easily packed for the tappall—however, they will be fully sufficient for you to ascertain that it is the tree. I am, *&c.*

Tritchinopoly, Jan 20. 1792.

From the same to the same.

Dear Sir,

I had the pleasure of sending you by the tappall, yesterday, two leaves of the bread fruit tree, of which I also gave you some account in my letter.

I now send you a drawing of a branch from the tree; and shall, in a day or two, send you another drawing with the fruit upon it; which I would have done to day, but did not choose to take off a branch with the fruit, without having obtained permission of the nabob's son Hussein ul Mulk.

Mr Trotter, surgeon, acquaints me there are a great number of these trees that produce fruit, in the Coimbatore country, and at Coimbatore itself. We have now a prodigious encrease of silk worms at Warriore, that are in a very healthy state, and produce a strong yellow silk, since the cessation of the rains. I am, *&c.*

Tritchinopoly Jan. 21. 1792.

From Dr J. Anderson to Sir Joseph Banks, bart.

Dear Sir,

Believing that it may be of useful consequence to the public, I have the pleasure to acquaint you, that the bread fruit tree has been found in several of the southern parts of the peninsula, as you will see by the two letters I have just received from Mr Mein, head surgeon at Tritchinopoly, of which I inclose copies, with the drawing which he transmitted me along with them.

Since the impression of my last publication, which was made a few days ago, and of which I have sent you copies, both in the Phœnix and Deptford, I have received accounts of the success of the silk worms at Palamcotta and Masulipatam, as well as of the recovery of those that had been diseased by the late rains at Tritchinopoly. So that a breed of this insect is already established in an extent of six hun-

dred miles upon the coast, but it will rest with the company to render it productive.

The incursions of the enemy's horse, have prevented me from exploring the country, and therefore I hope you have received the white lac which I sent by captain Cunningham.

As you have no doubt heard of the succeſs of our arms in Maiſsore, I must acquaint you, that in our new conquest of Bangalore, the mercury in the thermometer is at 57 in the morning, and 71, or 72 at noon, at this season.

I am, *&c.*

Fort St. George,
Jan. 26. 1792.

From Dr Anderson to Nicol Mein, esq.

Dear Sir,

Your letter, with the drawing of the bread fruit tree, did not arrive time enough for the packet, but I immediately sent a copy of both your letters, with the drawing which you sent inclosed, to Sir Joseph Banks, time enough to reach captain Gerrard before he got on board, thinking it of consequence to be known in England.

The slips you have taken will not grow unleſs they are ſhoots from the root, and that you have removed the root along with them; for neither the bread fruit, nor our common jack, which are both of the same genus, *viz.* artocarpus, can be propagated by this means, nor by the Chinese method, of potting, as it is called in England.

The jack, indeed, is readily propagated by seeds; but I do not understand that ever the artocarpus incisa, or bread fruit, has been raised in this way.

The only method of procuring a multiplication of the trees, is to lay the roots bare, by removing the earth round an old tree, and cutting through one or two roots, or as many as may be cut without injury to the trunk, and raising the upper extremity of the cut root above ground, where it ſhould remain till it sends out a stem two or three feet in height; for if the root is dug up at an earlier period, the young stem is so succulent and tender, it is very apt to decay.

I have been so particular that you may communicate with the gentlemen in the Coimbatore country, and procure as many young trees as posible.

The reverend Mr John, and some philosophical gentlemen at Tranquebar, are the first Europeans who have cultivated this tree on the coast; and by their means, Mr Roxburgh, I believe, was supplied with some plants which he sent to England, which were said to have come originally from Ceylon; but as Mr Andrews has traced it from Travancore, where Mr Alexander Anderson found it under the name of the Maldive jack, it is probably a native of the Indian, as well as Pacific Ocean; although the uses to which it may be applied in the economy of human life, might still have remained unknown, but for these southern voyages.

Notwithstanding what I have said about its propagation, when the fruit is ripe, I could wish you to examine it, and see if there is any thing like kernels or seeds, that you may likewise try if it can be raised from seeds. It thrives best on the same kind of soil as the jack, which is the red volcanic earth near the foot of the hills, and a higher level than to admit standing water in the monsoon.

Fort St George,
Jan. 29. 1792.

I am, *&c.*

From Robert Andrews esq. to Dr James Anderson

Dear Sir,

Mr Mein has before written you on our notion of having discovered the bread fruit tree; he has sent you a leaf thereof, and this day sends you a drawing of a branch of the tree, with a representation of the fruit.

I now forward to you in a small box, a bud, which appears to shoot out like Indian corn, and you will observe the young fruit inclosed therein. I remain, *&c.*

Tritchinopoly, Jan. 23. 1792.

From Dr James Anderson to Robert Andrews, esq.

Dear Sir,

I am just favoured with your letter, and the bud of the bread fruit tree, with the fruit, which appears singular, as nature has been more careful of this, than of most

other trees, in defending every leaf, with two spathœ, or ſheaths, in the manner that the flowers of some trees, the palms particularly, are defended, or like the Indian corn you mention.

Mr Mein's letters, and the first drawing, were just time enough to go this morning in the Deptford, to Sir Joseph Banks; the second drawing of the fruit must wait some future opportunity.

I rely on your care, as well as his, to multiply the plants of this very valuable tree, (of which, we have only three at Madras,) for which purpose, I have written him directions by this tappal, which he will ſhew you. I am, *&c.*

Fort St. George. Jan 27. 1792.

To be continued occaſionally.

TO CORRESPONDENTS.

THE obliging communication by Varietas *is received, and ſhall be inſerted with the firſt convenience. The ironical piece he mentions, if executed with delicacy, will be highly acceptable. Sportive good humour is always ſure to pleaſe.*

The Editor returns beſt thanks to J. H. *for his obliging communication, which he will endeavour to avail himſelf of as ſoon as conveniency will permit. Will be glad to hear from this correſpondent when convenient.*

The reflections by A. *are juſt, and well founded; but the Editor wiſhes to touch on that ſubject as ſeldom as poſſible at preſent, and hopes his obliging correſpondent will accept of this apology for deferring it till a more convenient ſeaſon.*

The very humourous letter of Merlinſpike *is received, and ſhall be inſerted with the firſt opportunity.*

The obliging communication by Juvenis *is come to hand, and ſhall be inſerted when an engraving can be made. It may be proper to defer it a little, till we ſee what changes are produced by a little time. It will be obliging, if, with that view,* Juvenis *will be ſo kind as communicate what farther obſervations occur, with his firſt convenience.*

The ſhort criticiſms by C. S. *ſhall not be neglected.*

The favour of Elvina *is received. Did the Editor think himſelf qualified for the taſk ſhe aſſigns him, he ſhould with pleaſure comply with her requeſt. To oblige her, he will endeavour to find ſome other perſon to aſſiſt him in this reſpect.*

Other notices deferred.

ERRATA.

*** The following errors remained uncorrected in a few copies of the laſt half ſheet of the Number which immediately precedes this. Thoſe, therefore, who have got theſe copies, will please correct them with a pen, as the ſenſe especially by the firſt error, is materially affected.

Page 141, line 14, for *eight* read *eighty*

—— 148, line 5. for *I* . read *In an early number.*

—— ib. line 9 from the bottom, for *nearly* read *early.*